

عنوان مقاله:

SOME LESSONS FROM THE SARPOL-E ZAHAB EARTHQUAKE OF NOVEMBER 2017

محل انتشار:

هشتمین کنفرانس بین المللی زلزله شناسی و مهندسی زلزله (سال: 1398)

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خلاصه مقاله:

The Sarpol-e Zahab, Kermanshah earthquake of 2017 was one of the most destructive earthquakes of the past few decades in Iran. Damage was extensive in both the traditional and confined masonry buildings, as well as, the code-designed framed buildings. The reason for the extensive damage may primarily be attributed to the poor workmanship, however, some shortcomings of the current seismic codes, such as Standard 2800 and Discussions 6, 8, 9 and 10 of the Iranian National Building codes could be noted regarding the performance of the buildings during an earthquake. In this paper, a critical look is made at some aspects of the seismic and other Iranian building design codes regarding the confined masonry, as well as the RC and steel framed buildings. Some of the more important notions include: inefficiency of the level of confinement in masonry buildings specified in current versions of Standard 2800 and Discussion 8 of the National Building Code to provide adequate seismic resistance for masonry buildings taller than one storey, the inadequacy of the Standard 2800 in predicting the level of magnification in taller buildings due to site effects and the inadequacy of the codes of practice in providing sufficient protection for moment-resisting frames. On the latter case, it is recommended that, similar to masonry buildings, in framed buildings a minimum 'equivalent shear wall ratio' be introduced as a secondary measure, should the moment frame fails to act as expected.

کلمات کلیدی:

Sarpol-e Zahab earthquake, Site effects, Earthquake damage, Seismic response

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